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PTO/SB/21 (6-98)

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/944,992 09/994002
	Filing Date	11/06/2001
	First Named Inventor	Glen Roeters
	Group Art Unit	2827
	Examiner Name	Mitchell, J.
Total Number of Pages in This Submission	Attorney Docket Number	DENSE-049A

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ENCLOSURES (check all that apply)		
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Signature	<i>[Handwritten Signature]</i>
Date	5/31/02

CERTIFICATE OF MAILING			
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: 5/31/2002			
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Case No.: DENSE-049A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Roeters et al.

Group No.: 2827

Serial No.: 09/944,002

Examiner: Mitchell, J

Filed: Nov. 6, 2001

For: THERMAL RING USED IN 3-D
STACKING

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AMENDMENT

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

Dear Sir:

The foregoing Amendment and remarks are responsive to the Office Action mailed

4/02/2002.

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IN THE CLAIMS:

1. A chip stack comprising:

at least two carrier layers, each of the carrier layers including a first conductive pattern disposed thereon;

at least one thermal ring having a second conductive pattern disposed thereon and including at least two unimpeded flow channels disposed therein, the thermal ring being disposed between the carrier layers, with the second conductive pattern being electrically connected to the first conductive pattern of each of the carrier layers; and

at least two integrated circuit chips electrically connected to respective ones of the

A1.